

App. No. 09/940,141
Amendment A
Page 2

Amendments to the Claims

Claim 1 (Currently amended): A computer implemented method for establishing a Virtual Private Network (VPN) communication tunnel between a client computer and a server-side system, comprising:

receiving a request to establish a VPN session with a server-side system from at least one client computer out of a plurality of client computers coupled to a modem within a client-side system, where said request contains login details for a user of said at least one client computer;

determining a network address of said at least one client computer;

authenticating said user based on said user login details; and

establishing a VPN tunnel between said at least one client computer having said network address and said server-side system, where said VPN tunnel is established over said modem;

receiving a new request to establish a new VPN session with a different server-side system from a different client computer out of said plurality of client computers coupled to said modem within said client-side system, where said request contains new login details for a new user of said different client computer;

determining a new network address of said different client computer;

authenticating said new user based on said new user login details; and

establishing a new VPN tunnel between said different client computer having said new network address and said new

App. No. 09/940,141
Amendment A
Page 3

server-side system, where said VPN tunnel is established over said modem.

Claim 2 (Original): The computer implemented method of claim 1, wherein said receiving further comprises obtaining security details from said client.

Claim 3 (Original): The computer implemented method of claim 1, wherein said determining further comprises reading a connection log to extract the network address of said at least one client computer.

Claim 4 (Original): The computer implemented method of claim 1, further comprising the step, after said determining step, of storing said network address.

Claim 5 (Original): The computer implemented method of claim 1, wherein said authenticating further comprises the steps of:

transmitting said login details to an authentication server for authentication; and
accepting an authentication response from said server.

Claim 6 (Original): The computer implemented method of claim 5, wherein said transmitting further comprises sending said login details to a Radius server.

Claim 7 (Original): The computer implemented method of claim 1, wherein said authenticating step further comprises the steps of:

App. No. 09/940,141
Amendment A
Page 4

transmitting said login details to an authentication server for authentication;
accepting a challenge from said server; and
re-transmitting said login details to said authentication server for authentication.

Claim 8 (Original): The computer implemented method of claim 1, wherein said determining further comprises ascertaining an Internet Protocol (IP) address of said client.

Claim 9 (Original): The computer implemented method of claim 1, wherein said determining further comprises ascertaining a Media Access Control (MAC) address of said client.

Claim 10 (Canceled)

Claim 11 (Currently amended): ~~The computer implemented method of claim 1, further~~ A computer implemented method for establishing a Virtual Private Network (VPN) communication tunnel between a client computer and a server-side system, comprising:

receiving a request to establish a VPN session with a server-side system from at least one client computer out of a plurality of client computers coupled to a modem within a client-side system, where said request contains login details for a user of said at least one client computer;

determining a network address of said at least one client computer;

authenticating said user based on said user login details;

establishing a VPN tunnel between said at least one

App. No. 09/940,141
Amendment A
Page 5

client computer having said network address and said server-side system, where said VPN tunnel is established over said modem;

receiving a new request to establish a new VPN session with said server-side system from a different client computer out of said plurality of client computers coupled to said modem within said client-side system, where said request contains new login details for a new user of said different client computer;

determining a new network address of said different client computer,

authenticating said new user based on said new user login details; and

establishing a new VPN tunnel between said different client computer having said new network address and said new server-side system, where said VPN tunnel is established over said modem.

Claim 12 (Original): The computer implemented method of claim 1, further comprising severing the VPN tunnel after a predetermined time of inactivity.

Claim 13 (Currently amended): A computer program product for use in conjunction with a computer system for establishing a Virtual Private Network (VPN) communication tunnel between a client computer and a server-side system, the computer program product comprising a computer readable storage and a computer program embedded therein, the computer program comprising:

instructions for receiving a request to establish a VPN session with a server side system from at least one client computer out of a plurality of client computers coupled to a modem within a client-side system, where said request contains

App. No. 09/940,141
Amendment A
Page 6

login details for a user of said at least one client computer;
instructions for determining a network address of said
at least one client computer;
instructions for authenticating said user based on said
user login details; and
instructions for establishing a VPN tunnel between said
at least one client computer having said network address and said
server-side system, where said VPN tunnel is established over said
modem;

instructions for receiving a new request to establish a
new VPN session with a different server-side system from a
different client computer out of said plurality of client computers
coupled to said modem within said client side system, where said
request contains new login details for a new user of said different
client computer;

instructions for determining a new network address of
said different client computer;

instructions for authenticating said new user based on
said new user login details; and

instructions for establishing a new VPN tunnel between
said different client computer having said new network address and
said new server side system, where said VPN tunnel is established
over said modem.

Claim 14 (Original): The computer program product of
claim 13, wherein said instructions for determining further
comprise instructions for reading a connection log to extract the
network address of said at least one client computer.

App. No. 09/940,141
Amendment A
Page 7

Claim 15 (Original): The computer program product of claim 13, wherein said computer program further comprises instructions for storing said network address.

Claim 16 (Original): The computer program product of claim 13, wherein said instructions for authenticating further comprise:

instructions for transmitting said login details to an authentication server for authentication; and

instructions for accepting an authentication response from said server.

Claim 17 (Original): The computer program product of claim 13, wherein said instructions for transmitting further comprise instructions for sending said login details to a Radius server.

Claim 18 (Original): The computer program product of claim 13, wherein said instructions for authenticating further comprise:

instructions for transmitting said login details to an authentication server for authentication;

instructions for accepting a challenge from said server;
and

instructions for re-transmitting said login details to said authentication server for authentication.

Claim 19 (Original): The computer program product of claim 13, wherein said instructions for determining further

App. No. 09/940,141
Amendment A
Page 8

comprise instructions for ascertaining an Internet Protocol (IP) address of said client.

Claim 20 (Original): The computer program product of claim 13, wherein said instructions for determining further comprise instructions for ascertaining a Media Access Control (MAC) address of said client.

Claim 21 (Canceled)

Claim 22 (Currently amended): ~~The computer program product of claim 13, wherein said computer program further A~~
computer program product for use in conjunction with a computer system for establishing a Virtual Private Network (VPN) communication tunnel between a client computer and a server-side system, the computer program product comprising a computer readable storage and a computer program embedded therein, the computer program comprising:

instructions for receiving a request to establish a VPN session with a server side system from at least one client computer out of a plurality of client computers coupled to a modem within a client-side system, where said request contains login details for a user of said at least one client computer;

instructions for determining a network address of said at least one client computer;

instructions for authenticating said user based on said user login details;

instructions for establishing a VPN tunnel between said at least one client computer having said network address and said server-side system, where said VPN tunnel is established over said modem;

App. No. 09/940,141
Amendment A
Page 9

instructions for receiving a new request to establish a new VPN session with said server-side system from a different client computer out of said plurality of client computers coupled to said modem within said client-side system, where said request contains new login details for a new user of said different client computer;

instructions for determining a new network address of said different client computer;

instructions for authenticating said new user based on said new user login details; and

instructions for establishing a new VPN tunnel between said different client computer having said new network address and said new server-side system, where said VPN tunnel is established over said modem.

Claim 23 (Original): The computer program product of claim 13, wherein said computer program further comprises instructions for severing the VPN tunnel after a predetermined time of inactivity.